

## Author Search

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 15:57:44 ON 16 SEP 2009

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FILE COVERS 1907 - 16 Sep 2009 VOL 151 ISS 12

FILE LAST UPDATED: 15 Sep 2009 (20090915/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

HCAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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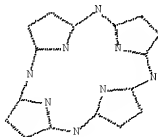
This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAPLUS family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D STAT QUE L24

L1 STR

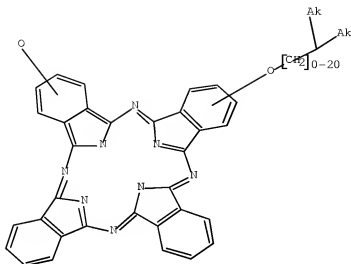


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L5 45087 SEA FILE=REGISTRY SSS FUL L1

L10

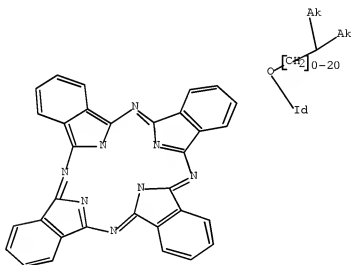
STR



Structure attributes must be viewed using STN Express query preparation.

L12 15 SEA FILE=REGISTRY SUB=L5 SSS FUL L10

L14 STR



Structure attributes must be viewed using STN Express query preparation.

L16 5 SEA FILE=REGISTRY SUB=L5 SSS FUL L14

L18 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L12

L19 9 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L16

L20 19 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON DE CUPERE V?/AU

L21 14 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON TANT J?/AU

L22 94 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON GEERTS Y?/AU

L23 0 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON DECUPERE V?/AU

L24 12 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L20 OR L21 OR L22 OR L23) AND (L18 OR L19)

=> D IBIB ED ABS HITSTR L24 1-12

L24 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:883577 HCAPLUS Full-text

DOCUMENT NUMBER: 151:276671

TITLE: Homeotropic Alignment of a Discotic Liquid Crystal Induced by a Sacrificial Layer

AUTHOR(S): Pouzet, Eric; De Cupere, Vinciane; Heintz, Christophe; Andreasen, Jens W.; Breiby, Dag W.; Nielsen, Martin M.; Viville, Pascal; Lazzaroni, Roberto; Ghabode, Gabin; Geerts, Yves H.

CORPORATE SOURCE: Laboratoire de chimie des polymeres, Universite Libre de Bruxelles, Brussels, B-1050, Belg.

SOURCE: Journal of Physical Chemistry C (2009), 113(32), 14398-14406

CODEN: JPCCCK; ISSN: 1932-7447

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 Jul 2009

AB A convenient method to induce face-on orientation of an alkoxyphthalocyanine discotic mesogen is described. The alignment is imposed by the confinement of the discotic thin films with a top sacrificial polymer layer that is easily removed by washing with a selective solvent, after thermal annealing. Thin films were characterized by optical and atomic force microscopy, UV-visible absorption spectroscopy, and grazing incidence wide angle x-ray scattering. The data converge in showing the central role of the sacrificial layer in promoting alignment with the planar mols. orienting parallel to the substrate in an essentially homeotropic arrangement over large lateral length scales and the persistence of this desirable alignment after removal of the layer.

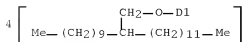
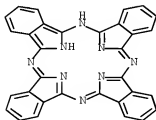
IT 803724-14-3

RL: PRP (Properties)

(homeotropic alignment of alkoxyphthalocyanine derivative discotic liquid crystal induced by poly(vinylphenol) sacrificial layer)

RN 803724-14-3 HCAPLUS

CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:351507 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 150:435417

TITLE: Miscibility between Differently Shaped Mesogens:

Structural and Morphological Study of a

Phthalocyanine-Perylene Binary System

AUTHOR(S): Zucchi, Gael; Viville, Pascal; Donnio, Bertrand; Vlad, Alexandru; Melinte, Sorin; Mondeshki, Mihail; Graf, Robert; Spiess, Hans Wolfgang; Geerts, Yves R. ; Lazzaroni, Roberto

CORPORATE SOURCE: Laboratoire de Chimie des Polymeres, Universite Libre de Bruxelles, Brussels, B-1050, Belg.

SOURCE: Journal of Physical Chemistry B (2009), 113(16), 5448-5457

CODEN: JPCBFK; ISSN: 1520-6106

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 Mar 2009

AB The thermotropic, structural, and morphol. properties of blends of a disk-like liquid crystalline phthalocyanine derivative and a lath-shaped perylenetetracarboxydiimide mesogen derivative were studied by combining DSC, thermal polarized optical microscopy, x-ray diffraction, solid-state NMR, and atomic force microscopy. The two compds. are fully miscible for blends containing at least 60 mol % of the disk-like mol. In such composition range, the homogeneous blends form a columnar hexagonal (Colh) mesophase for which the thermal stability is enhanced compared to that of the corresponding mesophase of the pure phthalocyanine. The miscible blends self-align homeotropically between two glass slides. For blends containing between 55 and 40 mol % of the disk-shaped mol., the two components are fully miscible at high temperature but the perylene derivative forms a sep. crystalline phase when the temperature is decreased. Phase separation is systematically observed in blends containing <40 mol % of the discotic mol. In this case, the resulting Colh mesophase is less stabilized compared to the blends containing a larger amount of the phthalocyanine derivative. These phase-separated blends do not show any homeotropic alignment. AFM studies confirm the formation of a single columnar morphol. in the phthalocyanine-rich blends, consistent with the full miscibility between the two compds. Solid-state NMR measurements on the mixed phase show the influence of the presence of the perylene mols. on the mol. dynamics of the mols.; remarkably, the presence of the host mols. improves the local order parameter in the phthalocyanine columnar phase.

IT 803724-14-3 1142843-82-0 1142843-86-4

1142843-87-5

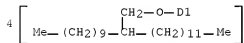
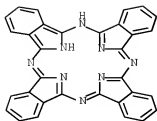
RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

(structural and morphol. study of miscibility, thermal stability and liquid crystal properties of differently shaped phthalocyanine-perylene binary system)

RN 803724-14-3 HCAPLUS

CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)



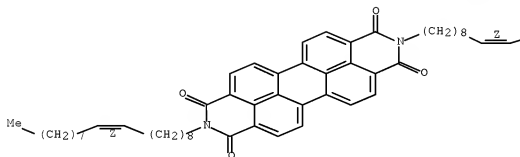
RN 1142843-82-0 HCAPLUS  
 CN Anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-1,3,8,10(2H,9H)-tetrone,  
 2,9-di-(9Z)-9-octadecen-1-yl-, compd. with  
 C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]-29H,31H-phthalocyanine (1:3) (CA  
 INDEX NAME)

CM 1

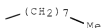
CRN 1017242-09-9  
 CMF C60 H78 N2 O4

Double bond geometry as shown.

PAGE 1-A



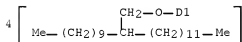
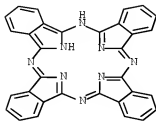
PAGE 1-B



CM 2

CRN 803724-14-3

CMF C128 H210 N8 O4  
CCI IDS



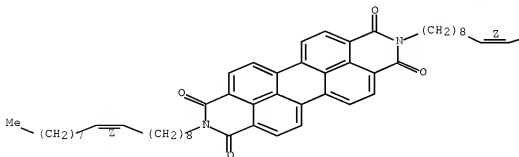
RN 1142843-86-4 HCAPLUS  
CN Anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-1,3,8,10(2H,9H)-tetrone,  
2,9-di-(9Z)-9-octadecen-1-yl-, compd. with  
C,C,C,2-tetrakis[(2-decyltetradecyl)oxyl]-29H,31H-phthalocyanine (1:1) (CA  
INDEX NAME)

CM 1

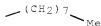
CRN 1017242-09-9  
CMF C60 H78 N2 O4

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

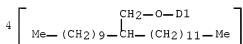
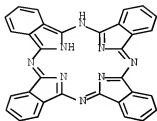


CM 2

CRN 803724-14-3

CMF C128 H210 N8 O4

CCI IDS



RN 1142843-87-5 HCAPLUS

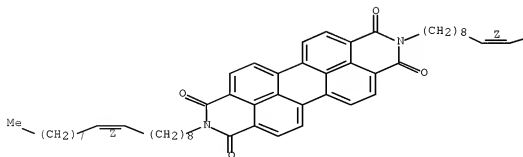
CN Anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-1,3,8,10(2H,9H)-tetrone,  
2,9-di-(9Z)-9-octadecen-1-yl-, compd. with  
C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]-29H,31H-phthalocyanine (3:1) (CA  
INDEX NAME)

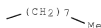
CM 1

CRN 1017242-09-9

CMF C60 H78 N2 O4

Double bond geometry as shown.



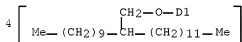
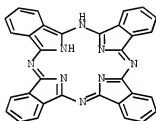


CM 2

CRN 803724-14-3

CMF C128 H210 N8 O4

CCI IDS



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1117198 HCAPLUS Full-text

DOCUMENT NUMBER: 149:365323

TITLE: Femtosecond Charge Transfer in Assemblies of Discotic Liquid Crystals

AUTHOR(S): de Jong, Michel P.; Osikowicz, Wojciech; Sorensen, Stacey L.; Sergeyev, Sergey; Geerts, Yves H.; Salaneck, William R.

CORPORATE SOURCE: Department of Physics, Chemistry and Biology, IFM, Linköping University, Linköping, 58183, Swed.

SOURCE: Journal of Physical Chemistry C (2008), 112(40), 15784-15790

CODEN: JPCCCK; ISSN: 1932-7447

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

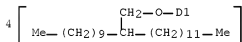
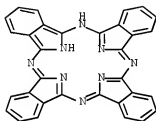
ED Entered STN: 18 Sep 2008

AB The electronic coupling strength within columns of discotic liquid crystals was studied using core-level resonant photoemission spectroscopy. Coexisting well-ordered and disordered regions are identified in thin films of tetra-alkoxy-substituted phthalocyanines with the aid of near edge x-ray absorption fine structure and photoelectron spectroscopies. These different regions were used to derive a lower limit for the intermol. charge transfer bandwidth



within the framework of the core-hole clock principle. Average charge transfer times on the order of a few femtoseconds, i.e., significantly faster than the C(1s) core-hole lifetime, which indicates a surprisingly strong electronic coupling between the phthalocyanine units as compared to what is expected from the charge transport characteristics of this material were found.

IT 803724~14~3  
 RL: PRP (Properties)  
 (femtosecond charge transfer in assemblies of discotic liquid crystals)  
 RN 803724-14-3 HCAPLUS  
 CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA  
 INDEX NAME)



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1015941 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 149:367625

TITLE: Monolayer Control of Discotic Liquid Crystal by Electromigration of Dewetted Layers in Thin Film Devices

AUTHOR(S): Calo, Annalisa; Stoliar, Pablo; Cavallini, Massimiliano; Sergeyev, Sergey; Geerts, Yves H.; Biscarini, Fabio

CORPORATE SOURCE: Institute for the Study of Nanostructured Materials, CNR, Bologna, 40129, Italy

SOURCE: Journal of the American Chemical Society (2008), 130(36), 11953-11958  
 CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Aug 2008

AB Ultrathin films of a semiconductive discotic liquid crystal, viz. phthalocyanines, can be organized to form a conductive channel tens of microns long between Au electrodes with thickness control over a single monolayer. The authors' approach exploits the electromigration of the isotropic phase formed starting from the pretransitional region of the columnar-isotropic phase transition. Dewetted isotropic material accumulates to the neg. electrode by applying a longitudinal elec. field of .apprx.1 V/μm. Dewetting

and electromigration expose an ultrathin film, a few monolayers thick, exhibiting columnar liquid crystal order. The layers of this ultrathin film melt progressively above TC and can be individually exfoliated by electromigration, starting from the ninth down to the 1st monolayer. The anal. of the current flowing through the junction as a function of the temperature, together with the comparative imaging of the evolution of morphol., yields a detailed picture of the changes in the dimensionality of the conductive phthalocyanine film and allows the authors to extract the behavior of the order parameter. The phenomenon of electromigration opens interesting questions on the technol. control of individual monolayers on device patterns.

IT 870088-23-6 870088-24-7 870088-25-8

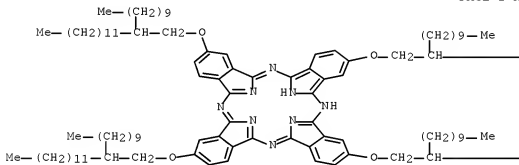
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(monolayer control of discotic liquid crystal by electromigration of dewetted layers in thin film devices)

RN 870088-23-6 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

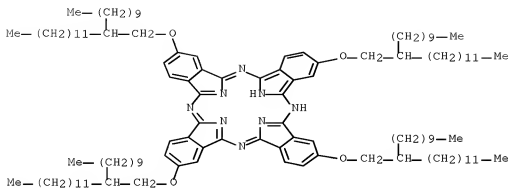
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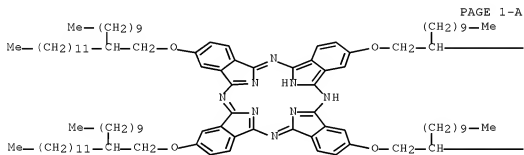
RN 870088-24-7 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,17,24-tetrakis[(2-decyltetradecyl)oxy]- (CA

INDEX NAME)



RN 870088-25-8 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,10,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)

PAGE 1-B

— (CH<sub>2</sub>)<sub>11</sub>—Me— (CH<sub>2</sub>)<sub>11</sub>—Me

REFERENCE COUNT:

37

THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 2008:741181 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 149:359203

TITLE: Microscopic morphology of thin films of phthalocyanine/perylene blends for organic solar cell devices

AUTHOR(S): Vlad, Alexandru; Serban, Dana A.; Viville, Pascal; de Cupere, Vinciane; Zucchi, Gael; Melinte, Sorin; Bayot, Vincent; Lazzaroni, Roberto; Geerts, Yves

CORPORATE SOURCE: DICE, Universite catholique de Louvain, Louvain-la Neuve, Belg.

SOURCE: Materials Research Society Symposium Proceedings (2005), 871E(Organic Thin-Film Electronics), No pp. given, Paper #: I9.43  
CODEN: MRSPDH; ISSN: 0272-9172  
URL: [http://www.mrs.org/s\\_mrs/bin.asp?CID=2734&DID=149234&DOC=FILE.PDF](http://www.mrs.org/s_mrs/bin.asp?CID=2734&DID=149234&DOC=FILE.PDF)

PUBLISHER: Materials Research Society

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

ED Entered STN: 20 Jun 2008

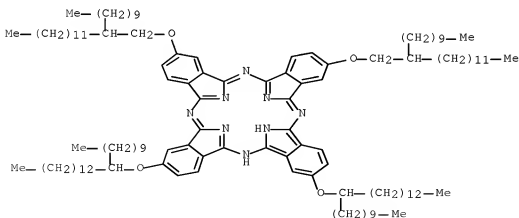
AB We report on the microstructure of 2(3)-9(10)-16(17)-23(24)-tetra(2-decyltetradecyloxy)-1 phthalocyanine/peryleneoyleylamine (PcH2/PTCDI) blends. Thin films, to be used as active layers in organic photovoltaic cells, were prepared by spin coating and spin casting of dilute toluene solns. on indium tin oxide (ITO) substrates. The morphol. of the thin films has been studied using Tapping Mode (TM) atomic force microscopy (AFM), whereas SEM was used to reveal the various top electrode morphologies, inherent to the different film processing conditions.

IT 1056028-09-1

RL: TEM (Technical or engineered material use); USES (Uses)  
(microscopic morphol. of thin films of phthalocyanine/perylene blends for organic solar cell devices)

RN 1056028-09-1 HCAPLUS

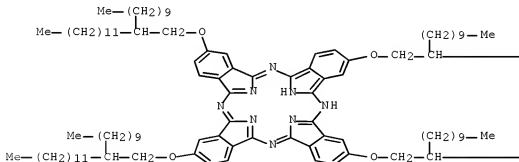
CN 29H,31H-Phthalocyanine, 2,9-bis[(1-decyltetradecyl)oxy]-16,23-bis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS

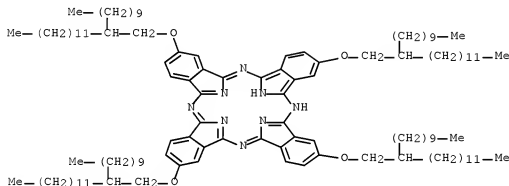
L24 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2007:866756 HCAPLUS Full-text  
 DOCUMENT NUMBER: 147:437332  
 TITLE: Uniaxial Alignment of Nanoconfined Columnar Mesophases  
 AUTHOR(S): Mouthuy, Pierre-Olivier; Melinte, Sorin; Geerts, Yves K.; Jonas, Alain M.  
 CORPORATE SOURCE: Cermin, Universite Catholique de Louvain, Louvain-la-Neuve, 1348, Belg.  
 SOURCE: Nano Letters (2007), 7(9), 2627-2632  
 CODEN: NALEFD; ISSN: 1530-6984  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 09 Aug 2007  
 AB By confining discotic phthalocyanines in a network of crisscrossed nanogrooves, the authors obtain a uniaxial alignment of the columnar mesophase. The alignment process is based on the anisotropy of interface tension between the mesophase and the nanogrooves' walls. Preferential mesophase alignment results from this nonhomogeneity combined with the anisotropy of the network cell dimensions. A simple model is proposed to explain the exptl. observations.  
 IT 870088-23-6 870088-24-7 870088-25-8  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
 (uniaxial alignment of tetrakis[(decyltetradecyl)oxy]phthalocyanine nanoconfined columnar mesophases on PMMA masks on silicon oxidized wafers using anisotropy of interface tension between mesophases and nanogrooves' walls)  
 RN 870088-23-6 HCAPLUS  
 CN 29H,31H-Phthalocyanine, 2,9,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)

PAGE 1-A

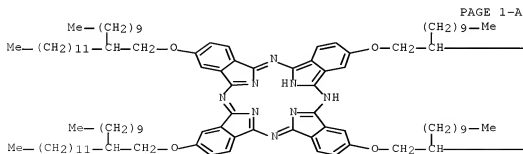


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RN 870088-24-7 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,17,24-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)

RN 870088-25-8 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,10,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)

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OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1219525 HCAPLUS Full-text

DOCUMENT NUMBER: 147:129820

TITLE: Charge transport properties of a metal-free  
phthalocyanine discotic liquid crystalAUTHOR(S): Deibel, C.; Janssen, D.; Heremans, P.; De Cupere,  
V.; Geerts, Y.; Benkhedir, M. L.;  
Adriaenssens, G. J.

CORPORATE SOURCE: IMEC, Louvain, 3001, Belg.

SOURCE: Organic Electronics (2006), 7(6), 495-499

CODEN: OERLAU; ISSN: 1566-1199

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 21 Nov 2006

AB Discotic liquid crystals can self-align to form one-dimensional semiconducting wires, many tens of microns long. In this letter, we describe the preparation of semiconducting films where the stacking direction of the disk-like mols. is perpendicular to the substrate surface. We present measurements of the charge carrier mobility, applying temperature-dependent time-of-flight transient photocond., space-charge limited current measurements, and field-effect mobility measurements. We provide exptl. verification of the highly anisotropic nature of semiconducting films of discotic liquid crystals, with charge carrier mobilities of up to  $2.8 + 10^{-3}$  cm<sup>2</sup>/V s. These properties make discotics an interesting choice for applications such as organic photovoltaics.

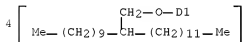
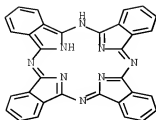
IT 803724-14-3

RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)

(charge transport properties of metal-free phthalocyanine discotic liquid crystal)

RN 803724-14-3 HCAPLUS

CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)  
 REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1205658 HCAPLUS Full-text

DOCUMENT NUMBER: 145:513960

TITLE: Method for the manufacturing of homeotropically aligned layer of discotic liquid crystals

INVENTOR(S): De Cupere, Vinciane; Heintz, Christophe; Geerts, Yves; Tant, Julien

PATENT ASSIGNEE(S): Universite Libre de Bruxelles, Belg.

SOURCE: Eur. Pat. Appl., 14pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1722424	A1	20061115	EP 2005-447108	20050513

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU

PRIORITY APPLN. INFO.: EP 2005-447108 20050513

ED Entered STN: 16 Nov 2006

AB The present invention relates to a method for the manufacturing of an homeotropically aligned layer of discotic liquid crystals comprising the steps of: - depositing a layer of a discotic material on a substrate; - depositing a sacrificial layer on said discotic layer; - inducing the homeotropic alignment of the discotic material of the layer by a magnetic field or by thermal annealing; - removing the sacrificial layer. This allows the liquid crystals to avoid air contact during annealing and allows subsequent deposition of other active organic layers or contacts.

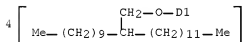
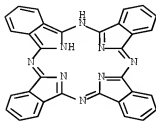
IT 803724-14-3

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); USES (Uses) (method for manufacturing homeotropically aligned layer of discotic liquid crystals)

RN 803724-14-3 HCAPLUS



CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)  
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:478715 HCAPLUS Full-text

DOCUMENT NUMBER: 145:177655

TITLE: Effect of Interfaces on the Alignment of a Discotic

Liquid-Crystalline Phthalocyanine

AUTHOR(S): De Cupere, Vinciane; Tant, Julien;  
Viville, Pascal; Lazzaroni, Roberto; Osikowicz,  
Wojciech; Salaneck, William R.; Geerts, Yves  
Henri

CORPORATE SOURCE: Laboratory of Polymer Chemistry, Universite Libre de  
Bruxelles, Brussels, 1050, Belg.

SOURCE: Langmuir (2006), 22(18), 7798-7806

CODEN: LANGD5; ISSN: 0743-7463

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 23 May 2006

AB This paper deals with the influence of the nature and number of solid  
interfaces on the alignment of the columns in a semiconducting discotic liquid  
crystal. The solid substrates were characterized in terms of their roughness  
and surface energy. The alignment of the discotic liquid crystal columns on  
these substrates was determined by optical microscopy under crossed polarizers  
and by tapping-mode atomic force microscopy. The nature of the substrates has  
negligible influence on the alignment. The key parameter is the confinement  
imposed to the film. These surprising observations are explained by the  
antagonist alignment role of gas and solid interfaces.

IT 803724-14-3

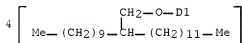
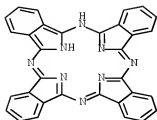
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
(Physical process); PROC (Process)

(effect of interfaces on alignment of semiconducting discotic  
liquid-crystalline phthalocyanine)

RN 803724-14-3 HCAPLUS

CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA

INDEX NAME)



OS.CITING REF COUNT: 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS  
RECORD (16 CITINGS)  
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:80962 HCAPLUS Full-text

DOCUMENT NUMBER: 144:321878

TITLE: Liquid crystalline metal-free phthalocyanines designed  
for charge and exciton transport. [Erratum to document  
cited in CA144:014471]

AUTHOR(S): Tant, Julien; Geerts, Yves Henri;  
Lehmann, Matthias; De Cupere, Vinciane;  
Zucchi, Gaeel; Laursen, Bo Wegge; Bjornholm, Thomas;  
Lemaure, Vincent; Marcq, Valerie; Burquel, Anick;  
Hennebicq, Emmanuelle; Gardebien, Fabrice; Viville,  
Pascal; Beljonne, David; Lazzaroni, Roberto; Cornil,  
Jerome

CORPORATE SOURCE: Laboratoire de Chimie des Polymeres, Universite Libre  
de Bruxelles, Brussels, B-1050, Belg.

SOURCE: Journal of Physical Chemistry B (2006), 110(7), 449  
CODEN: JPCBPK; ISSN: 1520-6106

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 29 Jan 2006

AB On page 20319, Table 1 lists incorrect cell parameters; the correct values are  
given. On page 20319, right column, lines 24 and 25, the halo values were  
corrected from "4.6 and 5.1 Å" to "4.9 and 5.1 Å". On page 20319, right  
column, lines 34 through 37, the  $\pi$ - $\pi$  stacking distance is corrected from "3.5  
Å" to "3.4-3.5 Å". On page 220319, right column, lines 51 and 52, the disk  
diams. are corrected from "1a (30.4 Å) and for 1b (31.8 Å)" to "1a (30.0 Å)  
and for 1b (32.2 Å)". On page 20320, right column, lines 8 and 9, the exptl.  
values are corrected from "30.8 and 32.1 Å" to "30.7 and 32.5 Å". On page  
20323, Reference 45 is corrected from "Ivanov, D. A. Personal communication"  
to by "Gearba, R. I.; Bondar, A. I.; Goderis, B.; Bras, W.; Ivanov, D. A. Chem  
Mater. 2005, 17, 2825-2832.". The online supporting information is also  
corrected

IT 870088-18-9P 870088-19-0P 870088-20-3P

870088-21-4P 870088-22-5P 870088-23-6P  
870088-24-7P 870088-25-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
(Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC  
(Process)

(preparation, liquid crystal properties and photophysics and mol. dynamics

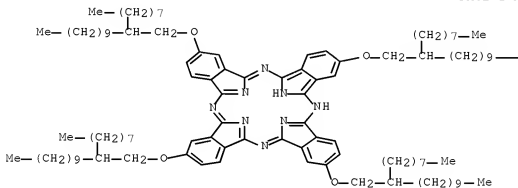
of

isomeric mixture containing (Erratum))

RN 870088-18-9 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,16,23-tetrakis[(2-octyldodecyl)oxy]- (CA  
INDEX NAME)

PAGE 1-A



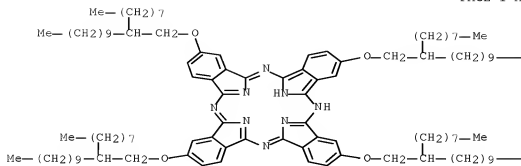
PAGE 1-B

— Me

RN 870088-19-0 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,16,24-tetrakis[(2-octyldodecyl)oxy]- (CA  
INDEX NAME)

PAGE 1-A



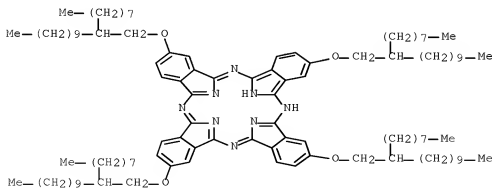
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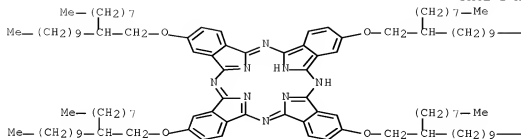
CN 29H,31H-Phthalocyanine, 2,9,17,24-tetrakis[2-(octyldodecyl)oxy]- (CA INDEX NAME)



RN 870088-21-4 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,10,16,24-tetrakis[2-(octyldodecyl)oxy]- (CA INDEX NAME)

PAGE 1-A



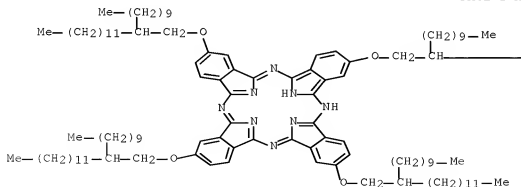
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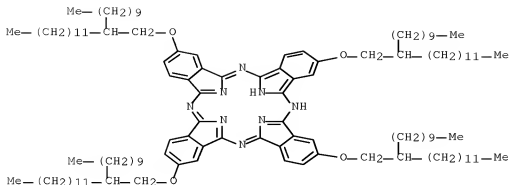
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RN 870088-22-5 HCAPLUS  
 CN 29H,31H-Phthalocyanine, 2,9,16,23-tetrakis[(2-decyltetradecyl)oxy]- (CA  
 INDEX NAME)

PAGE 1-A

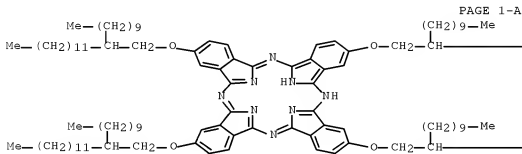






RN 870088-25-8 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,10,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)



PAGE 1-B

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—  $(\text{CH}_2)_{11}-\text{Me}$

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L24 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:1085985 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:14471

TITLE: Liquid Crystalline Metal-Free Phthalocyanines Designed for Charge and Exciton Transport

AUTHOR(S): Tant, Julien; Geerts, Yves Henri; Lehmann, Matthias; De Cupere, Vinciane; Zucchi, Gaeel; Laursen, Bo Wegge; Bjornholm, Thomas; Lemaire, Vincent; Marcq, Valerie; Burquel, Anick; Hennebicq, Emmanuelle; Gardebien, Fabrice; Viville, Pascal; Beljonne, David; Lazzaroni, Roberto; Cornil, Jerome

CORPORATE SOURCE: Laboratoire de Chimie des Polymeres, Universite Libre de Bruxelles, Brussels, B-1050, Belg.

SOURCE: Journal of Physical Chemistry B (2005), 109(43), 20315-20323  
CODEN: JPCBKF; ISSN: 1520-6106

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 11 Oct 2005

AB A joint theor. and exptl. study of the electronic and structural properties of liquid crystalline metal-free phthalocyanines bearing a strong potential for charge and exciton transport was performed. The synthesis of such compds. was triggered by quantum chemical calcns. showing that: (i) hole transport is favored in metal-free phthalocyanines by their extremely low reorganization energy (0.045 eV) and large electronic splittings; and (ii) the efficiency of energy transfer along the 1-dimensional discotic stacks is weakly affected by rotational disorder due to the two-dimensional character of the mols. The authors synthesized two metal-free phthalocyanines with different branched aliphatic chains on the gram scale to allow for a full characterization of their solid-state properties. The two compds. self-organize in liquid crystalline mesophases, as evidenced by optical microscopy, DSC, x-ray powder diffraction, and mol. dynamics simulations. They exhibit a columnar rectangular mesophase at room temperature and a columnar hexagonal mesophase at elevated temperature

IT 870088-18-9P 870088-19-0P 870088-20-3P  
870088-21-4P 870088-22-5P 870088-23-6P  
870088-24-7P 870088-25-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

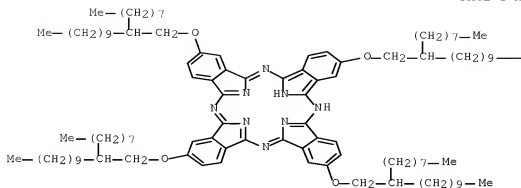
(preparation, liquid crystal properties and photophysics and mol. dynamics of isomeric mixture containing)

RN 870088-18-9 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,16,23-tetrakis[(2-octyldodecyl)oxy]- (CA INDEX NAME)



PAGE 1-A

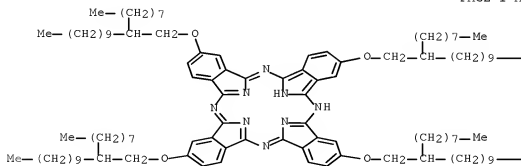


PAGE 1-B

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RN 870086-19-0 HCAPLUS  
 CN 29H,31H-Phthalocyanine, 2,9,16,24-tetrakis[(2-octyldodecyl)oxy]- (CA  
 INDEX NAME)

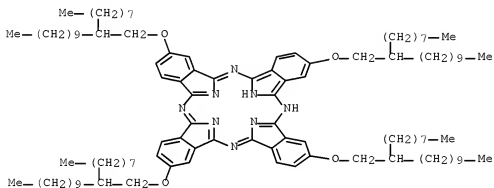
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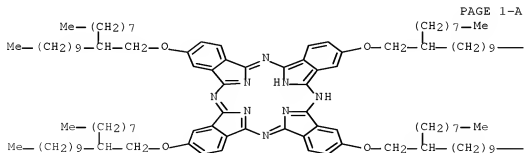
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— Me

RN 870088-20-3 HCAPLUS  
 CN 29H,31H-Phthalocyanine, 2,9,17,24-tetrakis[(2-octyldodecyl)oxy]- (CA  
 INDEX NAME)



RN 870088-21-4 HCAPLUS  
 CN 29H,31H-Phthalocyanine, 2,10,16,24-tetrakis[(2-octyldodecyl)oxy]- (CA  
 INDEX NAME)

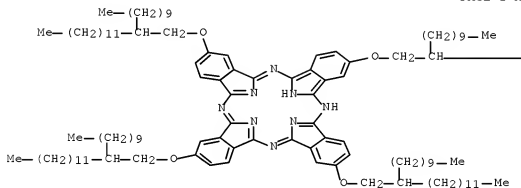


PAGE 1-A

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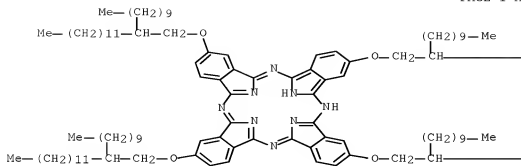
RN 870088-22-5 HCAPLUS  
CN 29H,31H-Phthalocyanine, 2,9,16,23-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)



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RN 870088-23-6 HCAPLUS  
CN 29H,31H-Phthalocyanine, 2,9,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA  
INDEX NAME)

PAGE 1-A

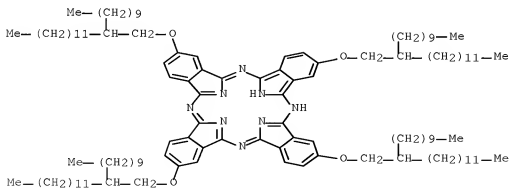


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RN 870088-24-7 HCAPLUS

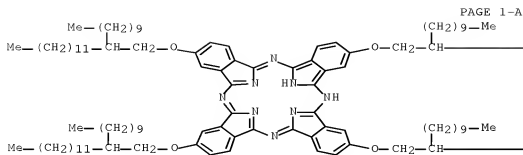
CN 29H,31H-Phthalocyanine, 2,9,17,24-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)



RN 870088-25-8 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,10,16,24-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)

INDEX NAME)

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OS.CITING REF COUNT: 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:810842 HCAPLUS Full-text

DOCUMENT NUMBER: 143:220437

TITLE: Phthalocyanine derivative layer in electronic multilayer devices and method for the manufacturing thereof

INVENTOR(S): De Cupere, Vinciane; Tant, Julien; Geerts, Yves

PATENT ASSIGNEE(S): Universite Libre de Bruxelles, Belg.

SOURCE: Eur. Pat. Appl., 9 pp.  
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

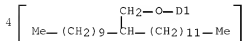
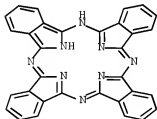
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1564826	A1	20050817	EP 2004-447032	20040210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

Serial No.:10/588,865

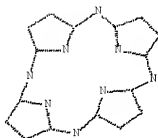
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 CA 2555309 A1 20050818 CA 2005-2555309 20050118  
 WO 2005076383 A2 20050818 WO 2005-EP556 20050118  
 WO 2005076383 A3 20051124  
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 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
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 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG  
 EP 1714331 A2 20061025 EP 2005-701089 20050118  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS  
 US 20070225491 A1 20070927 US 2007-588865 20070608  
 PRIORITY APPLN. INFO.: EP 2004-447032 A 20040210  
 WO 2005-EP556 W 20050118  
 OTHER SOURCE(S): MARPAT 143:220437  
 ED Entered SIN: 18 Aug 2005  
 AB The present invention relates to an electronic device including at least one  
 organic semi-conducting layer comprising a homeotropically organized  
 phthalocyanine derivative sandwiched between at least two substrate layers.  
 The electronic device can be used in photovoltaic cells, organic light  
 emitting diodes and sensors.  
 IT 803724-14-3D, derivs.  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical  
 process); PYP (Physical process); PROC (Process); USES (Uses)  
 (phthalocyanine derivative layer in electronic multilayer devices and  
 method for the manufacturing thereof)  
 RN 803724-14-3 HCAPLUS  
 CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[{2-decyltetradecyl}oxy]- (CA  
 INDEX NAME)



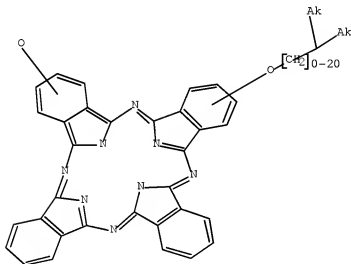
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# Structure Search

=> D STAT QUE L18  
L1 STR



Structure attributes must be viewed using STN Express query preparation.  
L5 45087 SEA FILE=REGISTRY SSS FUL L1  
L10 STR



Structure attributes must be viewed using STN Express query preparation.  
L12 15 SEA FILE=REGISTRY SUB=L5 SSS FUL L10  
L18 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L12

=> S L18 NOT L24  
L39 1 L18 NOT L24

=> D IBIB ED ABS HITSTR 1

## Serial No.:10/588,865

L39 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:1066869 HCAPLUS Full-text  
 DOCUMENT NUMBER: 145:440958  
 TITLE: Lubricant composition  
 INVENTOR(S): Kawata, Ken  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 98pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006106856	A1	20061012	WO 2006-JP306718	20060330
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JP 2006307201	A	20061109	JP 2006-93620	20060330
JP 2006307202	A	20061109	JP 2006-93621	20060330
EP 1876220	A1	20080109	EP 2006-730666	20060330
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
US 20090143262	A1	20090604	US 2007-887451	20070928
KR 2007116672	A	20071210	KR 2007-724989	20071029
PRIORITY APPLN. INFO.:			JP 2005-98917	A 20050330
			WO 2006-JP306718	W 20060330
OTHER SOURCE(S):	MARPAT 145:440958			
ED	Entered STN:	13 Oct 2006		
AB	Disclosed is a lubricant composition containing a polymer which has a mesogen structure in a main chain or a side chain. The polymer added as the viscosity index-improving agent also improves shear stability and lubricating characteristics of the lubricant oil.			
IT	912821-61-5	912822-21-0	912823-09-7	
RL:	MOA (Modifier or additive use); USES (Uses) (viscosity index improving polymer additive for lubricant oils)			
RN	912821-61-5 HCAPLUS			
CN	Poly[[9,10,16,17,23,24-hexakis[(2-hexyldodecyl)oxy]-29H,31H-phthalocyanine-2,3-diyl-κN29,κN30,κN31,κN32](1,12-dioxo-2,5,8,11-tetraoxadodecane-1,12-diyl)(SP-4-2)-copper complex](9CI)(CA INDEX NAME)			

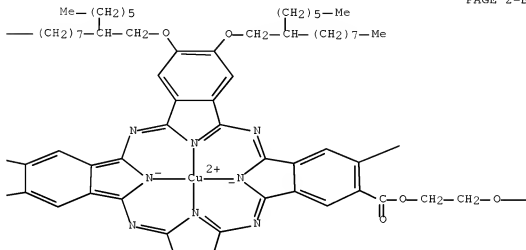
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*



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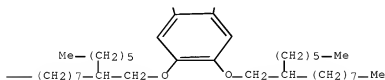
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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

PAGE 3-B



\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

RN 912822-21-0 HCAPLUS

CN Copper, [2-[2-[2-[3,9,10,16,17,23,24-heptakis[(2-hexyldecyl)oxy]-29H,31H-

phthalocyanin-2-yl-κN29,κN30,κN31,κN32]oxy]ethoxy]  
ethoxy]ethyl 2-methyl-2-propenoato(2-)]-, (SP-4-2)-, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

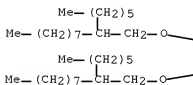
CRN 912822-20-9

CMF C154 H256 Cu N8 O12

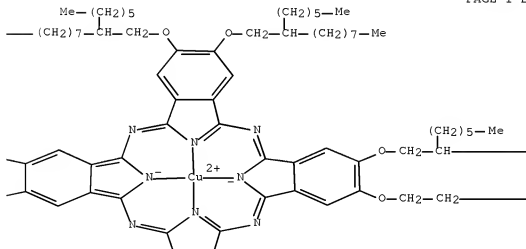
CCI CCS

PAGE 1-A

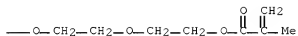
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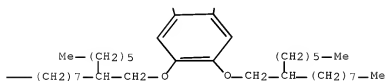
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PAGE 2-A

Me—

PAGE 2-B



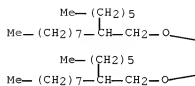
RN 912823-09-7 HCAPLUS  
 CN Copper, [9,10,16,17,23,24-hexakis[(2-hexyldecyl)oxy]-29H,31H-phthalocyanine-2,3-dicarboxylato(4-)-κN29,κN30,κN31,κN32]-, dihydrogen, (SP-4-2)-, polymer with 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

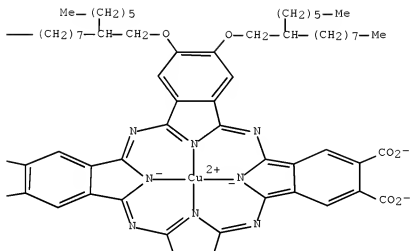
CRN 912823-08-6  
 CME C130 H206 Cu N8 O10 . 2 H  
 CCI CCS

PAGE 1-A

Me—



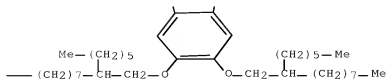
PAGE 1-B



PAGE 2-A

Me—

● 2 H<sup>+</sup>



CM 2

CRN 112-27-6

CMF C6 H14 O4

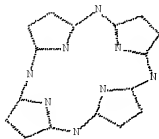


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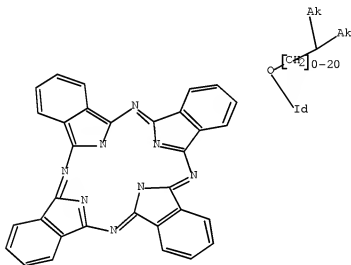
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THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L1 STR



Structure attributes must be viewed using STN Express query preparation.  
L5 45087 SEA FILE=REGISTRY SSS FUL L1  
L14 STR



Structure attributes must be viewed using STN Express query preparation.  
L16 5 SEA FILE=REGISTRY SUB=L5 SSS FUL L14  
L19 9 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L16

=> S L19 NOT L18,L24  
L40 2 L19 NOT (L18 OR L24)

=> D IBIB ED ABS HITSTR 1-2

L40 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2008:1350942 HCAPLUS Full-text  
DOCUMENT NUMBER: 150:110464  
TITLE: Comparative structural study of thin films of a

columnar liquid crystal aligned by mechanical shearing and zone casting

AUTHOR(S): Anokhin, Denis V.; Rosenthal, Martin; Makowski, Tomasz; Tracz, Adam; Bras, Wim; Kvashnina, Kristina; Ivanov, Dimitri A.

CORPORATE SOURCE: CNRS UPR 9069, Institut de Chimie des Surfaces et Interfaces, Mulhouse, F-68057, Fr.

SOURCE: Thin Solid Films (2008), 517(2), 982-985  
CODEN: THSFAP; ISSN: 0040-6090

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

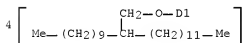
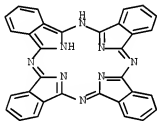
ED Entered STN: 11 Nov 2008

AB Zone casting is a promising method for fabrication of open highly oriented crystalline and liquid crystalline (LC) films for various applications in (opto)electronics. The authors have performed a comparative structural anal. of mech. sheared and zone-cast films of a model columnar LC. Grazing incidence x-ray diffraction and UV-vis spectroscopy show that, contrary to the mech. sheared films, the columns in the zone-cast films are aligned perpendicular to the casting direction. In the films, two LC domains with [20] or [11] reciprocal space vectors perpendicular to the substrate plane are observed. This can be explained by a small lattice mismatch allowing epitaxial growth of the LC domains on each other.

IT 803724-14-3  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(comparative structural study of thin films of columnar liquid crystal aligned by mech. shearing and zone casting)

RN 803724-14-3 HCAPLUS

CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA INDEX NAME)

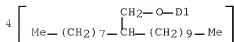
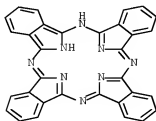


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2004:1054303 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 142:45544  
TITLE: A composition for photon-energy up-conversion  
INVENTOR(S): Miteva, Tzenka; Nelles, Gabriele; Yasuda, Akio; Balouchev, Stanislav; Keivanidis, Panagiotis; Lupton,

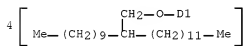
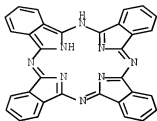
PATENT ASSIGNEE(S): John  
 Sony International Europe G.m.b.H., Germany;  
 Max-Planck-Gesellschaft zur Foerderung der  
 Wissenschaften e.V.  
 SOURCE: Eur. Pat. Appl., 30 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1484379	A1	20041208	EP 2003-12536	20030602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20050056815	A1	20050317	US 2004-856628	20040528
AU 2004202413	A1	20041216	AU 2004-202413	20040531
AU 2004202413	B2	20090730		
KR 2004103500	A	20041208	KR 2004-39539	20040601
JP 2005049824	A	20050224	JP 2004-164783	20040602
PRIORITY APPLN. INFO.:			EP 2003-12536	A 20030602
ED Entered SIN: 09 Dec 2004				
AB A composition for photon energy up-conversion is described comprising at least two components, wherein a first component is capable of absorbing energy at a first wavelength region $\lambda_1$ , which first component acts as a sensitizer in the composition, and wherein a second component is capable of emitting energy at a second wavelength region $\lambda_2$ , which second component acts as an emissive component in the composition, wherein $\lambda_2 \leq \lambda_1$ , and wherein, upon absorption of energy by the first component at the first wavelength region $\lambda_1$ , the emissive component emits energy at the second wavelength region $\lambda_2$ , characterized in that the first component and/or the second component is an organic compound A photon-energy upconversion system comprising a substrate and the described composition is also described.				
IT 863724-13-2 863724-14-3 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (sensitizer; composition for photon-energy up-conversion and devices of using the same)				
RN 863724-13-2 HCAPLUS				
CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-octyldodecyl)oxy]- (9CI) (CA INDEX NAME)				





RN 803724-14-3 HCAPLUS  
 CN 29H,31H-Phthalocyanine, C,C,C,2-tetrakis[(2-decyltetradecyl)oxy]- (CA  
 INDEX NAME)



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS  
 RECORD (10 CITINGS)  
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

# Search History

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FILE 'REGISTRY' ENTERED AT 14:41:59 ON 16 SEP 2009
L4          3 SEA SPE=ON ABB=ON PLU=ON (50926-11-9/BI OR 7429-90-5/BI OR
            803724-14-3/BI)
L5          45087 SEA SSS FUL L1
L6          50 SEA SPE=ON ABB=ON PLU=ON L5 AND L2
L7          1 SEA SPE=ON ABB=ON PLU=ON L5 AND L4
L8          STRUCTURE UPLOADED
L9          50 SEA SUB=L5 SSS SAM L8
L10         STRUCTURE UPLOADED
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L12         15 SEA SUB=L5 SSS FUL L10
L13         0 SEA SPE=ON ABB=ON PLU=ON L12 AND L4

FILE 'REGISTRY' ENTERED AT 15:14:01 ON 16 SEP 2009
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L16         5 SEA SUB=L5 SSS FUL L14
L17         1 SEA SPE=ON ABB=ON PLU=ON L16 AND L4

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L19         9 SEA SPE=ON ABB=ON PLU=ON L16
L20         19 SEA SPE=ON ABB=ON PLU=ON DE CUPERE V7/AU
L21         14 SEA SPE=ON ABB=ON PLU=ON TANT J7/AU
L22         94 SEA SPE=ON ABB=ON PLU=ON GEERTS Y7/AU
L23         0 SEA SPE=ON ABB=ON PLU=ON DECUPERE V7/AU
L24         12 SEA SPE=ON ABB=ON PLU=ON (L20 OR L21 OR L22 OR L23) AND
            (L18 OR L19)

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L26         0 SEA SSS FUL L10
L27         0 SEA SSS FUL L14

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L29         0 SEA SPE=ON ABB=ON PLU=ON L16

FILE 'MARPAT' ENTERED AT 15:21:01 ON 16 SEP 2009
L30         5 SEA SSS SAM L10
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L33         2381 SEA SSS FUL L1
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L37         STRUCTURE UPLOADED

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Serial No.:10/588,865

L38            183 SEA SUB=L33 SSS FUL L37

FILE 'HCAPLUS' ENTERED AT 15:57:44 ON 16 SEP 2009

L39            1 SEA SPE=ON ABB=ON PLU=ON L18 NOT L24

L40            2 SEA SPE=ON ABB=ON PLU=ON L19 NOT (L18 OR L24)